

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): A process for preparing methacrylic acid comprising:

- a) reacting acetone cyanohydrin with a maximum of 1.2 equivalents of sulphuric acid in the presence of 0.05-1.0 equivalent of water; wherein said reacting occurs in the presence of an inert polar solvent at a temperature below 80°C and forms a stirrable solution of the corresponding amide sulphate(s) in the inert solvent,
- b) adding water to the stirrable solution of a) and removing the inert polar solvent to produce a solution containing water, ammonium hydrogensulphate and alpha-hydroxyisobutyric acid,
- c) adding an extractant to remove the hydroxyisobutyric acid from the solution produced by b) and recovering a solution containing alpha-hydroxyisobutyric acid in the presence of a metal salt of alpha-hydroxyisobutyric acid,
- d) converting in liquid phase the solution containing alpha-hydroxyisobutyric acid obtained by c) at a temperature between 160-300°C to a mixture substantially comprising methacrylic acid and water, and
- e) recovering the methacrylic acid.

Claim 2 (Previously Presented): The process of Claim 1, wherein process step a) is performed at a temperature of less than 70°C.

Claim 3 (Currently Amended): The process of Claim 1, wherein the inert polar solvent is an inert C₂-C₁₂ carboxylic acid, inert nitro compound, or an aliphatic sulphonic acid.

Claim 4 (Currently Amended): The process of Claim [[3]] 1, wherein the inert polar solvent is a carboxylic acid selected from the group of acetic acid, propionic acid, methylpropanoic acid, butyric acid, and isobutyric acid; or a corresponding homologous longer-chain aliphatically branched or unbranched carboxylic acid.

Claim 5 (Previously Presented): The process of Claim 1, wherein the inert polar solvent is acetic acid.

Claim 6 (Currently Amended): The process of Claim 1, wherein the inert polar solvent is nitromethane.

Claim 7 (Previously Presented): The process of Claim 1, wherein the inert polar solvent is methanesulphonic acid.

Claim 8 (Previously Presented): The process of Claim 1, wherein the aqueous ammonium hydrogensulfate in the solution formed in step b) is removed by treatment in a sulphuric acid contact plant to form nitrogen and sulfuric acid, and the sulfuric acid is recycled into step a).

Claim 9 (Currently Amended): The process of Claim [[8]] 1, wherein the extractant in step c) is selected from the group consisting of nitro compounds, sulphonic acids and esters derived therefrom, carboxylic acids and esters derived therefrom, methyl hydroxyisobutyrate, and sparingly water-soluble ketones, ethers or aromatic solvents of the general formula R-

C=O-R' (where R = Me- and R' [[= C-1 to C-12 hydrocarbons]] is a C₁ to C₁₂ hydrocarbon group which may be branched or unbranched).

Claim 10 (Currently Amended): The process of Claim [[8]] 1, wherein said extractant is methyl ethyl ketone or methyl isobutyl ketone.

Claim 11 (Previously Presented): The process of Claim 1, further comprising step f):
f) reacting the methacrylic acid with an alcohol to obtain a methacrylic acid ester.

Claim 12 (Currently Amended): The process of Claim 11, wherein the alcohol is selected from the group consisting of methanol, ethanol, propanol and ~~corresponding homologous and analogous~~ other C₁ to C₁₂ alcohols ~~up to C₁₂ hydrocarbons~~.

Claim 13 (Previously Presented): The process of Claim 8, wherein a full conversion of greater than (>)99% is achieved at a reaction time for amidation in step a) of below 60 min and at a reaction time for hydrolysis in step d) of below 120 min.

Claim 14 (Previously Presented): The process of Claim 8, wherein a full conversion of greater than (>)99% is achieved at a reaction time for amidation in step a) of below 30 min and at a reaction time for hydrolysis in step d) of below 100 min.

Claim 15 (Previously Presented): The process of Claim 8, wherein a full conversion of greater than (>)99% is achieved at a reaction time for amidation in step a) of below 20 min and at a reaction time for hydrolysis in step d) of below 75 min.

Claim 16 (Previously Presented): The process of Claim 1, wherein the yield of methacrylic acid is at least 95%.

Claim 17 (Previously Presented): The process of Claim 1, wherein the yield of methacrylic acid is at least 98%.

Claim 18 (Currently Amended): The process of Claim 1, wherein the yield of methacrylic acid is [[up to]] at least 99.5%.